New Double Stars. By the Rev. T. E. Espin, M.A.

No.	B.D.	R.A. 1900. h m	Decl. ° ′	P. °	D. ″	Mags.		Nights.	Date. 1908.	
552	+56,143	0 47·4	+56 41	85·9	12·60	7·0	13·0	2	·015	
553	+45,405	1 33·5	45 32	144·1	5·15	8·8	9·2	3	·014	
554	+42,549	2 27·4	42 32	24·9	5·80	9·1	9·3	1	·099	
555	+41,501	32·0	41 46	323·9	9·62	8·5	11·5	2	·083	
556	+41,543	42·2	42 0	352·7	6·40	8·4	10·7	2	·073	
557	+47,712	44·3	47 41	315·8	5·04	9·1	12·4	4	·075	
558	+45,710	3 0·0	45 22	357·8	8·47	7·5	9·4	2	·082	
559	...	6·8	43 54	250·6	3·17	9·3	11·2	2	·116	
560	+45,784	26·3	45 55	140·8	8·60	8·4	10·1	3	·091	
561	+45,787	26·6	45 25	38·8	7·40	8·9	9·1	2	·087	
562	+44,769	34·0	44 17	358·4	2·91	9·3	11·7	5	·066	
563	+44,809	47·6	44 35	23·3	6·14	9·0	12·6	4	·082	
564	+42,876	56·7	42 30	115·3	2·29	8·9	9·3	4	·117	
565	+42,890	4 0·0	42 35	62·2	4·75	9·3	10·6	2	·090	
566	+46,881	18·5	46 19	281·3	5·10	9·4	12·0	3	·106	CD
				150·2	11·10	8·9	10·8	2	·097	AB
				148·0	27·15			2	·097	AC
567	+44,945	18·7	45 1	128·9	7·97	8·8	9·4	3	·106	BC
				351·8	36·32	A = 8·8		2	·097	AB
568	+42,969	20·7	42 58	304·3	5·07	7·7	12·0	2	·083	
569	+44,967	24·5	44 43	19·5	7·72	9·0	12·8	3	·122	
570	+41,898	26·8	41 15	178·7	3·90	9·1	13·0	1	·153	
571	+48,1146	39·9	49 3	59·9	3·35	9·1	9·2	2	·143	
572	+41,966	41·9	41 28	93·1	3·05	8·8	12·0	1	·153	
573	+42,1228	5 9·4	42 33	122·9	5·01	8·0	10·5	3	·040	
574	+47,1122	10·3	47 12	87·7	1±	9·7	10·3	3	·108	BC
				63·1	33·65	A = 9·4		3	·108	AB
575	+48,1264	16·9	48 16	353·6	14·35	8·1	10·7	3	·113	
576	+42,1274	17·2	42 31	342·8	8·45	8·0	13·7	2	·015	AB
				236·3	42·35		8·2	2	·015	AC
577	...	17·3	47 17	133·5	2·30	9·7	11·5	2	·101	
578	+49,1403	40·2	49 22	41·7	2·02	9·1	9·2	2	·131	
579	+47,1249	6 1·0	47 26	115·3	6·57	8·5	11·0	2	·119	BC
				341·3	57·00	A = 8·3		2	·119	AB
580	+44,1380	4·0	44 45	226·3	6·85	9·0	9·4	3	·078	AB
				119·2	22·30	C = 12·0		1	·082	AC
581	+49,1470	7·3	49 0	61·6	3·25	8·8	11·5	2	·121	
582	+44,1492	29·4	44 10	301·9	6·18	9·6	12·3	3	·107	
				79·0	33·92	A = 9·3		3	·107	
583	+44,1527	38·0	44 35	69·4	4·67	9·4	9·6	4	·082	

No.	B.D.	R.A. 1900. h m	Decl. ° ′	P. °	D. ″	Mags.		Nights.	Date. 1908.	
584	+47,1353	43·9	47 21	325·4	3·00	9 4	10·0	2	·045	
585	+45,1430	7 17·7	45 3	237·3	2·72	7·7	11·7	2	·138	
586	+41,1670	23·3	41 49	16·8	13·40	8·1	11·5	2	·189	
587	+46,1307	39·3	46 9	80·7	4·80	8·9	9·2	2	·083	
588	...	40·1	47 33	304·2	2·15	9·5	9·8	3	·078	
589	+48,1576	41·2	48 1	178·3	10·00	7·7	13·7	4	·132	
590	+43,1746	47·8	43 25	69·8	7·40	9·0	9·4	2	·095	
591	+45,1536	8 0·5	45 30	48·2	1·62	9·4	9·6	2	·083	
592	+41,1799	6·3	41 52	327·4	2·72	8·6	9·9	3	·308	
593	+41,1810	10·0	41 12	208·2	4·70	9·4	9·6	2	·235	BC
				230·2	19·82	A = 8·5		2	·235	AB
594	+43,1820	18·6	43 35	183·0	2·48	9·2	12·0	3	·112	
595	+48,1654	24·1	48 6	234·9	7·75	8·5	13·2	2	·082	
596	+46,1436	41·1	45 54	201·3	2·65	8·6	9·0	3	·095	
597	+45,1640	42·8	45 48	262·6	5·33	8·5	11·8	3	·091	
598	+47,1630	55·2	47 45	261·0	7·20	8·6	10·5	2	·119	
599	+41,1915	59·7	41 31	137·3	3·02	9·0	11·8	2	·152	
600	+50,1673	9 35·5	49 49	71·6	3·65	9·0	13·5	2	·152	
601	+46,1549	41·1	46 21	287·5	3·47	9·0	9·2	2	·119	
602	...	47·6	48 36	32·9	2·95	10·4	11·1	3	·261	
603	+48,1887	10 36·7	48 43	98·5	10·57	9·1	11·0	2	·260	
604	+45,1865	40·7	45 43	52·7	1·82	10·6	11·4	2	·249	
	+49,1900	49·2	48 40	158·4	47·00	8·0	8·7	2	·292	
605	+48,1953	11 27·0	48 11	64·5	4·17	8·9	13·7	2	·260	
	+43,2261	12 43·5	42 53	50·1	46·07	7·5	7·7	2	·323	
606	+43,2293	56·8	42 58	284·9	8·53	8·5	12·0	3	·304	
607	+43,2299	13 0·7	43 15	224·9	6·10	9·0	11·5	1	·334	
608	+48,2138	33·0	48 45	271·8	2·57	9·0	9·2	2	·289	
609	+48,2224	14 33·2	48 14	12·3	4·65	9·0	10·7	2	·289	

Notes.

559.—38^{s} f, 50″ S, OΣ 51.

574.—Measures of the close pair are unsatisfactory, and I had some doubts about the star being really double. Professor Burnham has, however, kindly looked at it with the 40 in., and confirms its duplicity.

583.—A 14 mag. south.

602.—Found and measured in looking for *h* 2510.

604.—The star is so faint that it is surprising that it is in the B.D.

605.—Angle mean of 61°·2, 67°·8. This is a very difficult pair to measure, from the faintness of the *comes*.

608.—In field south of *h* 2667.

Results of Micrometer Measures of Double Stars made with the 28-inch Refractor at the Royal Observatory, Greenwich, in the year 1907.

(*Communicated by the Astronomer Royal.*)

The measures were made with a bifilar position-micrometer on the 28-inch refractor, focal length 28 feet. The power generally employed was 670. When bright stars were observed a blue glass shade was usually employed to diminish the light and irradiation. The initials in the last column are those of the observers, viz.—

L.	Mr. Lewis.	W.B.	Mr. Bowyer.
B.	Mr. Bryant.	H.F.	Mr. Furner.

The stars have been observed from a working catalogue containing all the G. W. Hough stars within the working zone, and a number of miscellaneous stars showing motion, or for which observations are required.

Some of these being wide pairs of no immediate interest, the present list of measures is confined to stars of which the separation is under 4″, or which show orbital motion.

Stars observed but not included in this List.

Struve Stars.

Σ 183 AC	Σ 1158 AB	Σ 1384	Σ 1541	Σ 2185 AB	Σ 2524
1000	1158 AC	1426 AC	1555 AC	2185 AC	2690 AB
1100	1158 AD	1468	1585	2220	2704 AD
	1158 AE	1481 AB	1612	2434	2709
	1196 AC	1481 AC	2140	2458	2725
	1196 BC	1507			

G. W. Hough Stars.

Ho. 494	Ho. 337 AB	Ho. 387	Ho. 423	Ho. 274	Ho. 597
495	21	547	269	115	604
8	28	406 AB	433	116	475 AC
11	29	552	434	586	476
316	523 AB	553	91	117	478
219	348	409	446	588 AB	191 AC
501	349	557	445	588 AC	302 BC
325	38	416	448	593	204
327	259	419	450	131	
508	543	561	451	145	

Royal Observatory, Greenwich:
1908 *May* 5.